IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	M.D. Baldwin et al.	Examiner	Azizul Q. Choudhury
Serial No.	09/972,010	Group Art Unit	2145
Filed	October 5, 2001	Docket No.	SJO920010093US1
TITLE	STORAGE AREA NETWORK METHODS AND APPARATUS FOR COMMUNICATION AND INTERFACING WITH MULTIPLE PLATFORMS		

REASONS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants request a pre-appeal brief review of the rejection of claims 1-20 as obvious (35 U.S.C. §103(a)) over Bates (U.S. Patent No. 6,977,927) in view of Phillips (U.S. Patent No. 5,321,828).

Applicants first request review on the grounds that Phillips is non-analogous art because Phillips is not in the field of the endeavor or pertinent to the claimed subject matter. Philips concerns an emulator for debugging microprocessors, whereas the claims concern communication between platform-specific and platform-independent processes in a SAN.

In the Advisory Action dated October 30, 2006 ("Advisory Action"), the Examiner contended that Phillips is analogous art because it teaches the trait of a command line communication between processing systems and hence is deemed to be in the same field of endeavor. Applicants traverse because Phillips discussion of command line interfaces does not establish that Phillips is in the same field of endeavor or pertinent. See, MPEP 2141.01(a).

Phillips is directed to an in-circuit emulator (ICE) to debug and develop microprocessors. According to the "Field of the Invention", Phillips "relates generally to microcomputer systems and more particularly to instruments that enable the development and debugging of the hardware and software in target machines by the emulation and control of the target CPU within the target environment" (Phillips, col. 1, lines 6-12). The claims, on the other hand, are directed to communication between platform-specific and platform-independent processors on different digital data processors in a storage area network (SAN). Applicants submit that an in-circuit emulator used for debugging machines is in a different field of endeavor than a SAN executing two operating systems and platform independent processes that invoke command line interfaces to effect execution of platform specific processes.

Further, Applicants submit that the in-circuit emulator of Phillips used to debug microprocessors is not reasonably pertinent to the particular problems with which the claims of the present application are concerned -- communication between platform-specific and platform independent processes on different digital data processors in a SAN or other network environment. Applicants submit that an inventor working on issues related to the claimed

communication between platform-independent and platform-specific processors in a SAN would not be motivated to a command line interface to control an in-circuit emulator to debug microprocessors. The Examiner has not provided any grounds that refute Applicants specific facts as to why Philips is non-analogous for not being in the same field of endeavor and not pertinent.

Applicants also request review because even if one were to combine Phillips and Bates (which Applicants submit is improper for the reasons explained above), the cited combination still does not teach or suggest the claim requirements for the following reasons.

With respect to independent claims 1, 15, and 21, the Examiner cited col. 23, lines 50-67 of Phillips as teaching the claim requirements of first and second common platform independent processes executing on first and second processors, wherein the first and second common platform independent processes invoke and communicate with a first and second command line interfaces, respectively, to effect execution of first and second platform specific processes, respectively. (Final Office Action, pg. 3) Applicants traverse.

The cited col. 23 of Phillips discusses GDB, a standard debugger that runs on the UNIX operating system. The source code of GDB is converted to a format compatible with a Microsoft "C" compiler running on DOS. Certain standard functions are altered to call their equivalents in "C". The GDB DLL retains its command line interface and does not allow Windows applications to link to its modules.

With regard to a command line interface, the cited col. 12 mentions that a debugger maintains a command line interface to perform other debugger functions. See also, Phillips, col. 22, lines 19-25; col. 23, lines 12-14; col. 24, lines 18-22; col. 26, lines 3-7. For instance, Phillips mentions that a low level control interface 21 is used to provide system administration of the ICE 10 (in-circuit emulator) (Phillips, col. 19, lines 60-66); that the low level control interface 21 allows several options to be performed from the command line (Phillips, col. 22, lines 19-21); and that the source level debugger is invoked with a DOS command line interface (Phillips, col. 24, lines 18-25).

Although Phillips discusses the use of a command line interface to perform debugger related operations, there is no teaching or suggestion in the cited col. 23 of the claimed first and second platform-independent processes that invoke and communicate with first and second command line interfaces of first and second operating systems to effect execution of first and second platform specific processes, respectively.

In the Advisory Action (second point of contention), the Examiner restated his finding on pg. 14 of the Final Office Action that the "prior art teaches how GDB (Unix based) communicates with Windows applications via ASCII in command line windows, which are retained." (Final Office Action, pg. 14) Applicants request review of this finding because the cited col. 23 just mentions that the debugger (GDB) retains a command line interface. This mention of a debugger retaining a command line interface nowhere teaches, suggests or mentions first and second common platform independent processes executing on first and second processors separately invoking and communicating with first and second command line interfaces of first and second operating systems to effect execution of first and second platform specific processes in a SAN as claimed.

Moreover, the cited col. 23 teaches away from the examiner's point that the GDB communicates with windows because col. 23 in fact states that the "GDB [debugger] DLL ... does not allow Windows applications to directly link to its modules." (Phillips, col. 23, lines 60-63).

Thus, even if one were to modify Bates with Phillips, Phillips discussion of the use of command line interfaces would only suggest that one may use command line interfaces in the systems of Bates. However, such proposed modification nowhere teaches or suggests the specific claimed use of command line interfaces, i.e., that first and second platform-independent processes invoke and communicate with first and second command line interfaces of first and second operating systems to effect execution of first and second platform specific processes, respectively, as claimed.

Applicants further request review of the rejection of claims 4, 16, and 23 which depend from claims 1, 15, and 21, respectively, and further require a manager in communication with the first and second common platform-independent process to transmit requests thereto for information regarding one or more components of the SAN.

The Examiner cited col. 13, line 29 to col. 14, line 60 of Bates as teaching the requirements of claim 4. (Final Office Action, pg. 5) Applicants traverse.

The cited cols. 13-14 of Bates mentions that a storage allocator maps or masks available storage space to present to hosts. The cited cols. 13-14 further mentions virtual LUN partitions and storage security. Each host, having different operating systems, has access to separate non-overlapping physical LUNs. The storage allocator may be controlled by a user interface to manually configure the allocation of storage. The storage allocator is implemented in a SAN appliance or device. Users may use a GUI to allocate storage using the storage allocator. Bates

further mentions that the storage allocator receives I/O requests from servers, maps the data I/O requests to physical storage I/O requests and forwards them to storage. (Bates, col. 3, lines 37-41).

In the Advisory Action (third point of contention), the Examiner maintained that the cited cols. 13-14 of Bates teaches how hosts with different operating systems can access SAN components, which is deemed equivalent to the claimed trait.

Applicants request review of this finding because the Examiner has not cited any part of Bates that teaches or suggests that the cited storage allocator performs the claimed operation of transmitting requests to first and second common platform-independent processes as claimed. For instance, the Examiner has not cited any part of Bates teaching that the storage allocator submits requests to first and second platform independent processes that effect execution of first and second platform-specific processes, where the platform independent and platform specific processors execute on a same digital data processor.

Applicants further request review of the rejection of dependent claims 5 and 24 in view of the above discussed storage allocator cols. 13-14 of Bates. (Final Office Action, pg. 6)

Applicants request review because the claims require, via the base claims 1 and 21, that the first and second common-platform independent processes and the first and second platform specific processes execute on the same first and second digital data processors, respectively. The cited storage allocator is implemented in a separate device from the servers and storage and receives requests from the servers for storage. See, FIG. 7 of Bates. Thus, Bates does not teach or suggest that the platform independent and platform-specific process effected by the platform independent process are on the same digital data processor. In fact, Bates teaches away because cited Bates shows that the storage allocator is a separate device from the servers ("In embodiments, the storage allocator of the present invention is based independently of a host", Bates, col. 9, lines 34-36)

In the fourth point of contention mentioned in the Advisory Action, the Examiner found that Bates' teaching of hosts with different operating systems accessing SAN components makes it inherent that communication between SAN components and the platform independent processes must occur. Applicants submit that this finding by the Examiner does not address the point that Bates discussion of a storage allocator "based independently of a host" does not teach the claim requirement that the platform independent and platform-specific process effected by the platform independent process are on the same digital data processor.

Further, the Examiner has not cited any part of Bates that teaches or suggests that the storage allocator invokes platform specific processes on the servers in response to a request from a manger. Instead, Bates mentions that the storage allocator receives read and write requests from servers and determines physical storage location on which to store the data and outputs the read and write requests to physical storage. (Bates, col. 3, line 54 to col. 4, line 5).

Applicants request review of the Examiner rejection of claims 6 and 25 in view of col. 3, lines 37-67 of Bates and the previously discussed col. 8 of Bates and col. 23 of Phillips as teaching the additional requirements of claim 6. (Final Office Action, pg. 7, Advisory Action – fifth point of contention)

The cited col. 3 discusses a network of servers with different operating systems, a storage allocator and storage, where the storage allocator receives read and write requests from the server to determine the storage locations for the request. The discussed cited col. 23 of Phillips discusses a debugger that has a command line interface through which it may be invoked.) Nowhere do the cited Phillips and Bates anywhere teach or suggest separate first and second platform specific processes executing on different processors having different operating systems gathering information on SAN components and transmit the gathered information to the standard output/error.

Applicants further request review of the rejection of claims 9, 18, and 26 in view of the cited col. 15, lines 5-22 of Bates as teaching a query and col. 3, lines 46-67 of Bates as teaching multiple processors and platform specific operations. (Final Office Action, pg. 9)

The cited col. 15 mentions that the storage allocator is implemented in a platform independent language, such as Java query language. The cited col. 3 discusses how the storage allocator provides access to storage to servers having different operating systems. Although the cited Bates mentions that the storage allocator is in a platform independent language query language, nowhere does the cited Bates (or Phillips) anywhere teach or suggest the claim requirement that the storage allocator uses a query engine for the claimed purpose transmitting requests to first and second common platform independent processes on different processors having different operating systems as claimed.

Dated: November 14, 2006

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
SJO920010093US1

Application Number	Filed
09/972,010	October 5, 2001

First Named Inventor: M.D. Baldwin

Art Unit	Examiner
2145	Azizul Q. Choudhury

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant/inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [X] attorney or agent of record. Registration number 39,867
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

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11/14/2006
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NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

- [ ] *Total of _____ forms are submitted.